

**Information** is one of the basic concepts of 20th century science.

According to our scientific physical world view, the material particles and objects in our world are constantly exchanging energy in the four-dimensional space-time continuum while their order changes.

*Information* is somehow connected to the spatial and temporal distribution and orderliness of these materials and energies. *Information* can be examined in different aspects (from different viewpoints) as well:

1. Information can be an intel, a report or some kind of notice about a given person, subject, or situation.
2. Information can be a special meaning of a given symbol group which carries information about a given object as well.
3. Information can be any kind of news which gives us necessary information about some kind of uncertainty.
4. Information can be used to measure the orderliness of a structured object.
5. Information is the world's most common internal status indicator which is determined by physical constants and laws.

Information is a difficult and abstract concept that represents the orderliness of the material structures (which are constantly reacting to each other) in our universe.

#### **Definition:**

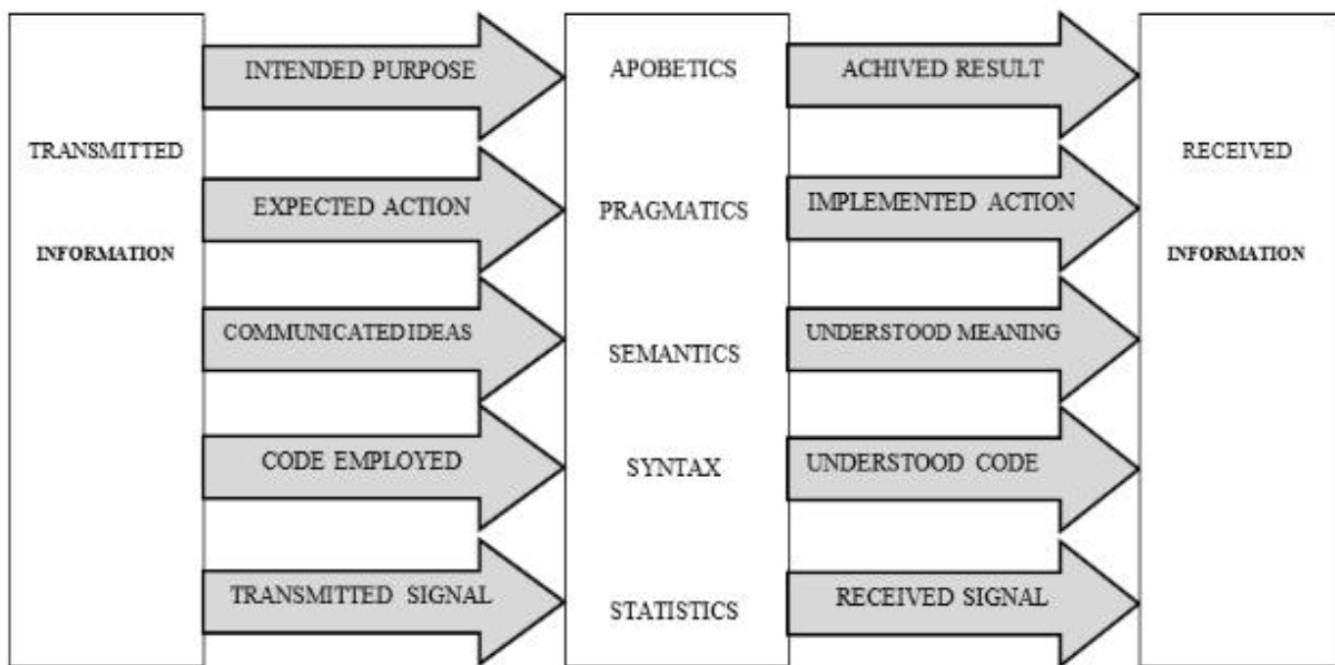
Information carries both quantitative and qualitative. Information is the characteristic of those groups which carry static and structural meaning (and are constantly reacting to each other).

Information can be used to achieve an individual's goals by enhancing that person's knowledge.

## **The properties of information form a hierarchical structure**

There are usually between 3-5 levels in this structure, according to the researchers of this area.

The most widely accepted structural layout is the 4-layer structure but if you take a look at the following model you may see 5 layers.



The multi-level model of information is suitable for several kind of analyses (according to different aspects).

**Quantitative properties** of the information are defined by the static and syntactical laws of encoding. The **qualitative properties** of the information are defined by the semantic and pragmatic laws.

- **statistical approach** examines the measurability of the information.
- **Syntactical approach** examines the formal qualities with the use of theory of coding and language theory as well.
- **Semantic approach** examines the meaning of the so-called informational primitives according to given semiotic and signal theories.
- **Pragmatic approach** seeks the effect of the information according to the end results/reactions and the behaviors related to them.
- **Apobetical approach** seeks the sender's intended purpose and the results on the receiver's side. It has lesser meaning to the engineering point of view.

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